Applicant: Koji Hayashi et al. Attorney's Docket No.: 10449-030001 / P1S2000244US

Serial No.: 09/748,509

Filed : December 26, 2000

Page : 2 of 7

## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## **Listing of Claims:**

- 1. (Cancelled)
- 2. (Cancelled)
- 3. (Currently Amended) A controller for controlling interruption and restarting of data writing to a recording medium, wherein the data written to the recording medium is read from a buffer memory, the controller comprising:

an encoder connected to the buffer memory, [[wherein ]] the encoder being configured to [[receives]]receive the data read from the buffer memory and to [[encodes]]encode the read data to generate encoded data;

[[one or more ]]an address [[memories]]memory connected to the buffer memory, [[wherein ]]the [[one or more]]address [[memories]]memory being configured to store a [[write data address]write-data-address of the data written to the recording medium and a [[read data address] read-data-address of the data read from the buffer memory when the writing of data to the recording medium is interrupted, [[wherein ]]the [[write data address]]write-data-address and the [[read data address]]read-data-address each [[indicate]]indicating a location of the data [[when]]at which the interruption occurs;

a synchronizing circuit for synchronizing the written data read from the recording medium with the encoded data;

a first retry determination circuit for determining whether an address of the written data, which is read from the recording medium, and the [[write data address]]write-data-address, which is stored in the [[one or more ]]address [[memories]]memory, are the same, and for

Applicant: Koji Hayashi et al. Attorney's Docket No.: 10449-Serial No.: 09/748,509 030001 / P1S2000244US

: December 26, 2000 Filed

Page : 3 of 7

determining whether an address of the read data, which is provided to the encoder from the buffer memory, and the [[read data address]]read-data-address, which is stored in the [[one or more ||address [[memories]]memory, are the same;

a second retry determination circuit for determining whether a first timing signal for reading the written data from the recording medium and a second timing signal for encoding the read data are the same, the first timing signal being derived from the recording medium; and

a restart circuit for restarting the writing of data to the recording medium based on the determinations of the first and second retry determination circuits.

- (Currently Amended) The controller according to claim 3, wherein the written 4. data read from the recording medium includes a first subcode synchronizing signal and the encoded data includes a second subcode synchronizing signal, and wherein the second retry determination circuit determines whether the first and second timing signals for reading the written data from the recording medium and the timing for encoding the read data are the same based on the first and second subcode synchronizing signals.
- 5. (Currently Amended) The controller according to claim 3, wherein the second retry determination circuit determines whether the first and second [[timings]]timing signals are the same when the first retry determination circuit determines that the addresses are the same.
- 6. (Currently Amended) The controller according to claim 3, further comprising: a first location detection circuit connected to the [[one or more]]address [[memories]]memory, wherein the first location detection circuit detects whether the address of the written data read from the recording medium and the [[write data address]]write-data-address stored in the [[one of more ]]address [[memories]]memory are the same; and

a second location detection circuit connected to the [[one or more ]]address [[memories]]memory, wherein the second location detection circuit detects whether the address of the data read from the buffer memory and the [[read data address]]read-data-address stored in the [[one or more ]]address [[memories]]memory are the same.

Applicant: Koji Hayashi et al. Attorney's Docket No.: 10449-Serial No.: 09/748,509 030001 / P1S2000244US

Filed : December 26, 2000

Page : 4 of 7

7. (Currently Amended) A controller for controlling interruption and restarting of data writing to a recording medium, wherein the data written to the recording medium is read from a buffer memory, the controller comprising:

an encoder connected to the buffer memory, wherein the encoder receives data read from the buffer memory and encodes the read data to generate encoded data;

[[one or more]]an address [[memories]]memory connected to the buffer memory,

[[wherein]] the [[one or more]] address [[memories]]memory being configured to store a [[write data address]]write-data-address of the data written to the recording medium and a [[read data address]]read-data-address of the data read from the buffer memory when the writing of data to the recording medium is interrupted, wherein the [[write data address]]write-data-address and the [[read data address]]read-data-address each indicate a location of the data [[when]]at which the interruption occurs;

a synchronizing circuit for synchronizing the written data read from the recording medium with the encoded data;

a retry determination circuit for determining whether an address of the written data, which is read from the recording medium, and the [[write data address]]write-data-address, which is stored in the [[one or more ]]address [[memories]]memory, are the same, and for determining whether an address of the read data, which is provided to the encoder from the buffer memory, and the [[read data address]]read-data-address, which is stored in the [[one or more ]]address [[memories]]memory, are the same, wherein the synchronizing circuit determines whether a first timing signal for reading the written data from the recording medium and a second timing signal for encoding the read data are the same; and

a restart circuit for restarting the writing of data to the recording medium based on the determinations of the retry determination circuit and the synchronizing circuit.

8. (Currently Amended) The controller according to claim 7, wherein the written data read from the recording medium includes a first subcode synchronizing signal and the encoded data includes a second subcode synchronizing signal, and wherein the synchronizing circuit determines whether the <u>first and second</u> timing for reading the written data from the recording medium and the timing for encoding the read data <u>signals</u> are the same based on the

Attorney's Docket No.: 10449-Applicant: Koji Hayashi et al. 030001 / P1S2000244US

Serial No.: 09/748,509

: December 26, 2000 Filed

Page : 5 of 7

first and second subcode synchronizing signals.

9. (Currently Amended) The controller according to claim 7, wherein the synchronizing circuit determines whether the first and second [[timings]]timing signals are the same when the [[first ]]retry determination circuit determines that the addresses are the same.

(Currently Amended) The controller according to claim 7, further comprising: 10. a first location detection circuit connected to the [[one or more ]]address [[memories]]memory, wherein the first location detection circuit detects whether the address of the written data read from the recording medium and the [[write data address]]write-data-address stored in the [[one of more ]]address [[memories ]]memory are the same; and

a second location detection circuit connected to the [[one or more ]]address [[memories]]memory, wherein the second location detection circuit detects whether the address of the data read from the buffer memory and the [[read data address]]read-data-address stored in the [[one or more ]]address [[memories]]memory are the same.